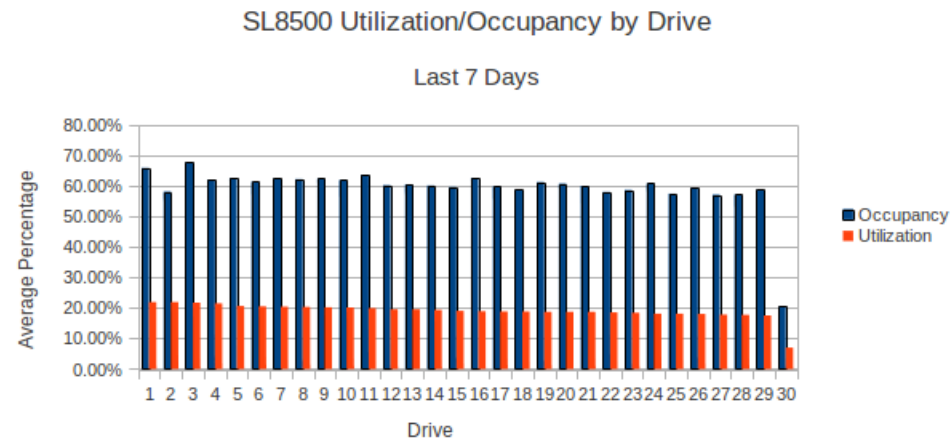# Zeus User Meeting

September 5th, 2012

Agenda

- HPSS Status

- Zeus Status

- Upcoming Events

- Serial job memory use (-lvmem)

- MPIExec in serial jobs

- X Applications

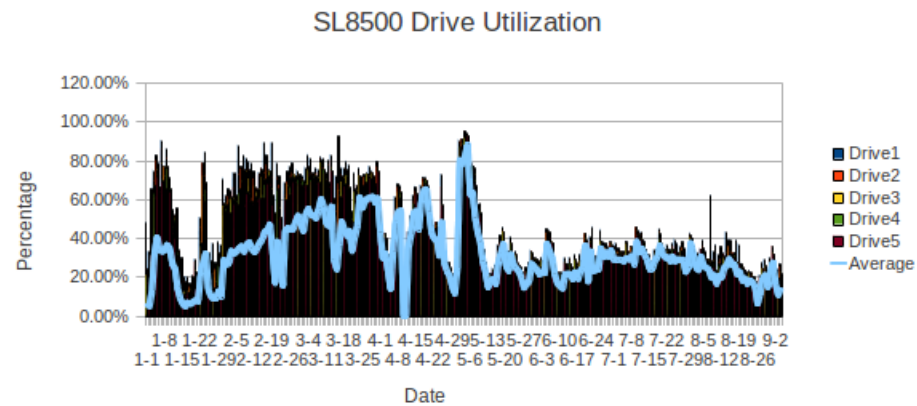- Windfall

- Known Issues

- Q&A

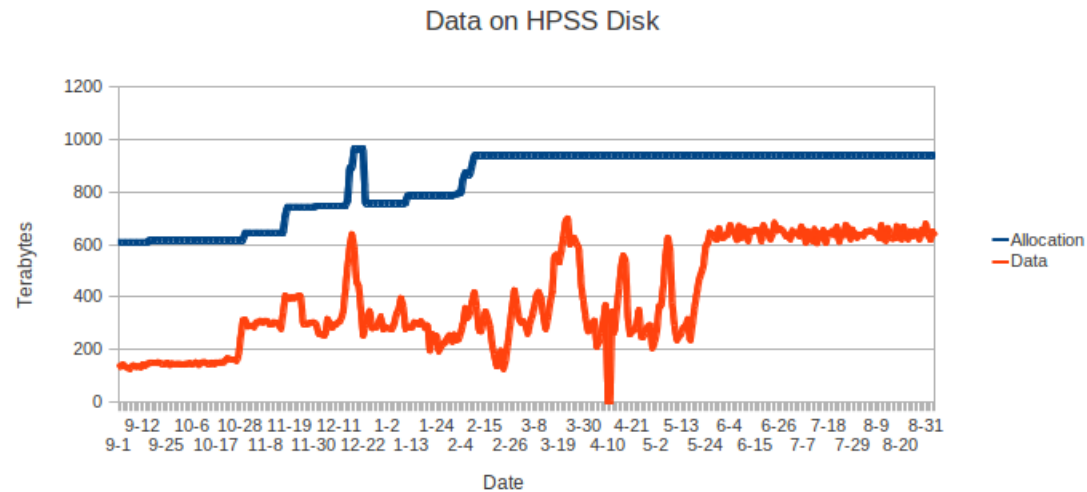# HPSS Status
Drive Occupancy

HPSS Status
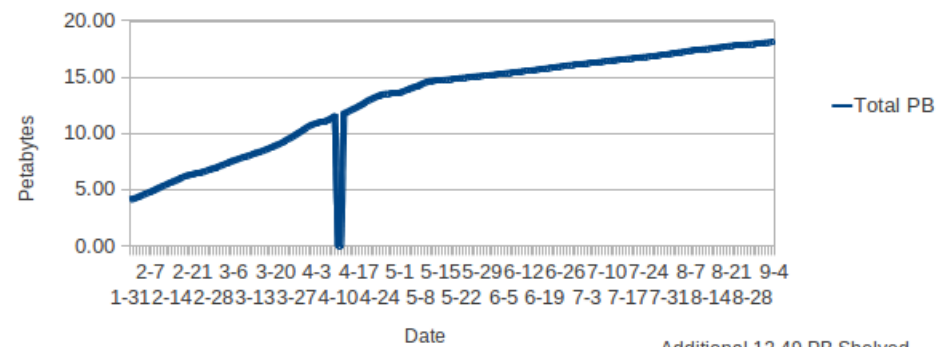## Drive Utilization (top 5)

HPSS Status
Data on Cache

Data on HPSS Disk

HPSS Status
Data on Tape

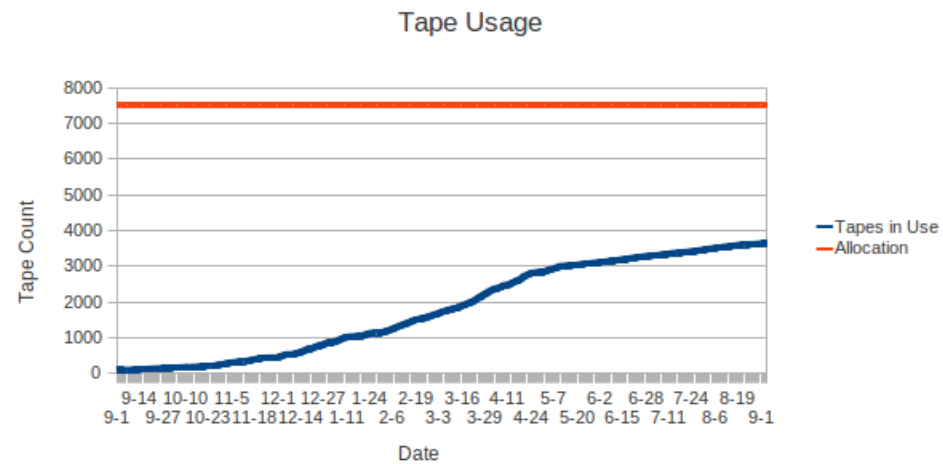NESCC HPSS DATA On TAPE (Online)

Storage Classes 11/12/13

Additional 12.49 PB Shelved

HPSS Status
Tapes in Use

Tape Usage

Zeus Utilization (top 10)

Project	TotalCHours	TotalJobs	BatchCHours	BatchJobs	WindCHours	WindJobs
gm	3214811.4	39870	1287513.6	24335	1927297.8	0
cmp	2875731.2	24987	981821.6	18651	1893909.5	0
ada	2013936.7	95276	1942823.7	3583	71113.0	0
gefs	1402904.2	94414	1391651.6	824	11252.6	0
gfdloceans	1345285.6	14752	1345285.6	0	0.0	0
isp-1	837179.5	1459	106073.4	1209	731106.1	0
fim	825945.6	8589	666289.2	1101	159656.4	0
gfdliidc	689083.3	1900	599390.8	230	89692.5	0
nrtrr	643849.7	361443	643849.7	0	0.0	0
gfdlport	528076.9	1422	528076.9	0	0.0	0

Upcoming Events

- System work Zeus and HPSS
  - 21 August 2012
  - Currently planning as day long outage
    - Will have a better time estimate by 16 August

Serial Job Memory Use (-lvmem)

- Tomorrow morning (9/6) we will make the –lmem and the –lpmem options invalid
  - Jobs will be rejected if either of these options is used
  - The only valid memory option is –lvmem
  - The default will be 1.2GB for serial jobs
  - This should help with serial job slowdowns and failures

- Jobs may fail that previously worked
  - The culprit is likely a incorrect estimation of memory usage
  - The reason it "worked" before is that the other two options (-lmem and –lpmem) actually had no effect

MPIExec in serial jobs

- MPIExec is not recommended for serial jobs

- Using omplace with MPIExec will cause problems
  - Multiple jobs may be assigned the same physical core
  - The problem will only manifest itself in the job using omplace (others will migrate to other cores)

X Applications

- FreeNX, an X traffic accelerator, is available on Zeus

- A client need to be installed on your workstation for this to work

- Look for further announcements and entries in the FAQ

Windfall

- There was an oversight in how we handle priorities with Windfall
  - This has been corrected

- Windfall jobs may now take longer to schedule
  - This is the desired behavior

- Windfall had been dominating over non-Windfall jobs
  - We will continue to monitor for this behavior and make appropriate changes as necessary

Outstanding Issues

- Details of issues and current status can be found at:
    - https://nesccdocs.rdhpcs.noaa.gov/wiki/index.php/Known_Issues
    - We'll take a look at this site...

Any Questions?